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Running head: RCT GROUP INTERVENTION ON WORK-ANXIETIES

Negative work perception not changed in a short work-anxiety-coping group therapy intrvention

Key words: Workplace, mental health, anxiety, sick-leave, work-oriented interventions

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Abstract

Background:

Work-anxiety is disabling and often associated with long-term sick leave. Early intervention is therefore necessary. Work-anxieties are associated with a negative work perception. Therefore one aim in early intervention is a cognitive reframing of dysfunctional perceptions of workplace characteristics.

Methods:

A psychotherapeutic specialist conducted two group programs of four sessions each. One hundred twenty-three rehabilitation inpatients with work-anxieties were randomly assigned either to a work-anxiety-coping group or to a recreational group. The Short Questionnaire for Work Analysis (KFZA) was administered before and after the group treatment to measure perceptions of working conditions.

Results:

Participants from the work-anxiety-coping-group did not see their work in a significantly more positive light at the end of the intervention compared to participants from the recreational group (interaction of repeated measurement * intervention: p= .177 – .971, Cohen´s d for comparison of change from beginning to the end of rehabilitation = 0.00 – 0.23).

Conclusions:

A short work-anxiety-coping-group did not initiate a consistent positive re-appraisal of work in this study population. Employers and occupational physicians should not expect positive changes of work perception when an employee returns from short medical rehabilitation, even in cases in which work-directed treatment was completed. Additional support from the workplace must be considered, e.g. employer-physician-employee-conversation preceding

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return to work, or (temporary) work adjustment. The aim should be to overcome return to work-barriers in the form of negative work perception.

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Negative work perception not changed in a short work-anxiety-coping group therapy intervention

Long-term sick-leave and delayed return-to-work is mainly due to mental disorders, especially work-anxieties.[1,2] Work-anxieties are specifically related to the workplace or occurring at the workplace. They are an important topic for occupational health research, as mental disorders are present in 30% of the general population[3], and 60% of patients with mental disorders suffer from work-anxiety.[1] An estimated 5% of selected mentally healthy employees are prone to sick-leave due to work-anxiety.[4] Early interventions are necessary to keep sick-leave-duration as short as possible.[5]

Successful return to work, defined as being at one´s workplace again or actively job-searching on the labor market, requires work-coping capacities and a positive *perception of work.* [6] Patients with work-anxieties – different from patients with general (non-work related) mental disorders – perceive their work in a more negative light.[7]
Therefore a cognitive behavior therapy on work-anxiety-coping should not only focus on coping strategies but also on work perception. In an early-intervention setting, such as a three-week medical rehabilitation, there is limited time to incorporate work-related topics in addition to providing medical intervention. However, the reappraisal of negative work perception may be an important first step to reducing work-anxiety.

This present analysis is part of a larger randomized controlled clinical trial on work-anxiety[8] which investigates whether a specific cognitive behavior-oriented work-anxiety-coping-group intervention leads to better work ability[8], work coping[8], and work perception than a

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recreational group which focuses only on well-being. This is the first controlled study done with the specific risk group of patients with work-anxieties.

METHODS

Setting and procedure

The intervention study was conducted in a German rehabilitation clinic that treats patients with long-term sick-leave due to physical or mental illness. To be eligible for this study, patients were required to have work-anxieties and react with worries or avoidance when return-to-work was suggested by the physician. Typical inpatient rehabilitation duration was three weeks. Within this time, study participants received four additional group sessions in addition to their usual medical care. The clinic was chosen because no other psychotherapeutic interventions beside the group therapy were offered, removing confounding effects due to other psychotherapies.

All newly admitted patients between 18–64 years of age of the neurologic, orthopaedic and cardiology departments from a large German rehabilitation clinic were screened for work-anxieties in a personal interview at the beginning of their rehabilitation stay. If they scored high in the work-anxiety-screening questionnaire (at least two out of nine items rated 3 or 4 on a scale from 0–4, and reporting suffering or impairment due to work-anxiety), they were examined more intensively for mental disorders and work-anxieties with DSM-based structured diagnostic interviews.[1,9] If patients suffered at least one work-anxiety according to the diagnostic interview, they were invited to participate in the group intervention study. Patients with work-anxiety but who were not currently employed were also invited to participate in the group intervention. This is because longer times “off from work” may increase work-anxiety,[5] therefore patients without a workplace in need of treatment.

https://doi.org/10.24355/dbbs.084-201907230912-0

Participants gave informed written consent and were assigned to the work-anxiety-coping-group or the recreational group. Both recreational and work-anxiety-coping-therapy were slow-open groups. They were conducted in three-month alternating intervals.

Participants provided self-reported perception of their workplace using the *Short Questionnaire for Work Analysis* (KFZA)[10] pre and post intervention. The study received ethical approval from the University Potsdam ethics committee.

Instruments

The diagnosis of present and lifetime mental disorders was determined using the *Mini International Neuropsychiatric Interview* (MINI), [9] an internationally evaluated instrument to make research diagnoses for the full range of mental disorders according to DSM-IV. Work-anxiety was assessed with the screening questionnaire[6] and an additional validated interview on specific work-anxieties (*Work-Anxiety-Interview*).[1] The interview has been validated in several studies with different anxiety questionnaires and psychopathology scales as measures for convergent and divergent validity. In this study, 83 diagnostic interviews were completed by a trained student psychologist co-rater (inter-rater reliability $\varkappa = .78$)**.** Patients´ work-perception was measured with the self-reported *Short Questionnaire for Job Analysis* (original KFZA).[10] It contains 26 items on 11 dimensions (Table 1). Each item is rated from 1 (do not agree at all) to 5 (completely agree).

Participants

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A state-licensed psychotherapist approached 722 patients between the ages of 18–65 years (unselected patients admitted to the clinic) in the initial screening interview.[1] Three hundred and one reported work-anxiety in the screening questionnaire. Next, these patients were completed further diagnostic concerning mental disorders and work-anxieties in the diagnostic interviews.[1,9] One hundred eighty three had a work-anxiety diagnosis in the work-anxiety diagnostic interview. Finally, 165 patients followed the therapy protocol (sixteen dropped out during treatment due to feeling unwell, two others were excluded due to other acute medical reasons). Complete data was collected from 123 patients (Table 1). Patients reported significantly (p<.05) worse work perception compared to heterogeneous working people[7] on the following KFZA dimensions: job control, social support, qualitative and quantitative stressors, situational constrains, environmental stressors, information and participation.

Group therapies

The work-anxiety-coping-group is a behavior-therapeutic treatment based on evaluated approaches of anxiety exposition therapy and cognitive therapy. The therapist conducts the groups according to a work-anxiety-coping-therapy manual[2]. A specific topic is covered in each session and therapy sessions can be conducted independent of each other, allowing new patients to be admitted at any time. Therapy contents are based on psychological capacities such as problem solving, personal initiative and cognitive reappraisal. Role plays are used for training interaction and conflict solving. Guided discovery and group feedback are used for correction of dysfunctional negative work perception. Dysfunctional work perceptions are ideas such as one can only work if one is perfectly healthy and feeling happy, or the idea that

[1] The data reported here are derived from the first cohort of participants in this therapy study. These patients were investigated concerning work perception with the KFZA. Data were collected from May 2012 to June 2013. A later cohort (reported in Muschalla et al. 2016) was investigated concerning work-coping.
[2] The work-anxiety-coping-therapy manual is available from the author.

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the workplace causes health problems, or that one's work ability is strongly dependent on colleagues and supervisors or work environment.

Participants in the recreational group were offered creative activities such as painting, cooking, playing games, or exercises on sensory enjoyment thought to improve well-being. The therapeutic aim was explicitly not to speak about work and professional problems, but instead carry out recreational activities and induce pleasant feelings.

Both groups were conducted by the same therapist, a specialist in psychiatry and psychotherapy, experienced with mental disorders in somatic patients. Both groups were regularly observed and supervised by a behavior therapist experienced with work-anxieties. Groups were conducted in three month intervals (cluster-random design).

Statistical analysis

To investigate the differential development of work perception in the two groups, analysis of (co)variance (ANCOVA) with repeated measurements was conducted over all 11 dimensions of the work description measure KFZA. Only cases with full data over the course were included. SPSS version 23 was used for data analysis. It may be possible that changes of work perception in any direction occur. Thus, there might be deterioration (in the sense of perceived higher level of stressors in the end) instead of improvement of work perception (such as perceived lower level of stressors) over the course. Therefore, we chose conservative testing (two-tailed tests of significance).

Results

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There were no significant differences between the intervention and the control group in the beginning of the rehabilitation treatment concerning past sick leave, employment status, number of diagnosis of mental disorders and work-anxiety diagnosis. However patients of the recreational group were older and more often unemployed. Work perception (KFZA) concerning the reference workplace (i.e. the present or last workplace) was not significantly different in the two groups. Work perception did not change significantly over the course of the intervention in either group (Table 1).

[insert table 1 here]

Discussion

The study results have two important practical implications: The first implication is that employers or occupational physicians who have employees sent to a short-term medical intervention should not expect their employees return with more positive work perception. Instead, work-anxieties must be taken seriously as a mental health problem which may lead to problems *at work* (via negative work perception). Employees with work-anxiety may need workplace support to overcome dysfunctional work perceptions. The second practical implication is that work-orientation in rehabilitation by a work-anxiety-coping-group can be done, as it does not lead to deterioration in the sense of worsening work perception. In contrast, it has also been found that focusing on patients´ wellbeing only and avoiding speaking about work leads to dysfunctional externalising attribution of health-problems, in the sense of "work caused or forced my health problems".[8]

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The strengths of this study are the controlled design for group comparison, the diagnostics and group therapies conducted and supervised by specialists for behavior therapy in mental disorders. Carried out in a natural setting of routine care, results from this study have ecological validity. As this therapy study was conducted within a medical rehabilitation, where somatic treatment played a major role, it may be that the setting of intervention (three weeks of rehabilitation with a dose of on average four group sessions beside a dominating medical treatment) was not appropriate for reaching consistent differential changes.

Future evaluation may be conducted with other target groups and in other settings, for example in the workplace. This would put the focus on prevention of sick-leave in employees who suffer from (low threshold) work-anxieties. This might be done with focus groups in larger companies,[11] possibly with continuous monitoring by an occupational physician. Work-anxiety might also be treated in different other clinical settings such as outpatient psychotherapy with longer treatment durations. A further research question is whether persons with work-anxieties actually *have* more difficult workplaces or "only" *perceive* work as more difficult.[12] This is an area for further research possibly done by comparing patient´s work perception with the work perception of mentally healthy colleagues who do the same work in the same workplace. Furthermore, it might be that persons with mental disorders drift into problematic working conditions over live-time.[13]

Conflict of interest statement:

There are no conflicts of interest.

Contributors

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The author initiated the therapy study, was main author writing the proposal and the design of the study. She carried out the initial screening interviews and diagnostic interviews and supervised the group therapies in the clinic. She did the data analysis and wrote the manuscript.

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Ethics approval

The research project was approved by the ethics committee of the University of Potsdam and the German Federal Pension Fund and by the internal review board of the German Federal Pension Fund Agency (concerning were patient information and voluntary participation, written informed consent, data security).

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Table 1. Comparison of patients with work-anxiety-coping-group and recreational group with repeated measurement over the course (factorial repeated-measures ANCOVA, *N*=123): Perception of the workplace. Means (standard deviation) are reported. Sig. of Difference for repeated measurement and interaction. Calculations have been controlled for age, gender, workplace status (presently obtaining a workplace or not), professional qualification degree, and presence of acute or lifetime mental disorder (comorbid to work-anxiety). Significant effects of covariates are reported below in the notes. [Effect sizes Cohen´s d for comparison of change from beginning to the end in work-anxiety-coping-group / recreational group].

	Baseline		End of rehabilitation		Sig. of Difference *p*		Effect size Cohen´s d
Work-perception Short questionnaire for Job-Analysis (KFZA)	Work-anxiety-coping-group (*n* = 67)	Recreational Group (*n* = 56)	Work-anxiety-coping-group (*n* = 67)	Recreational Group (*n* = 56)	Repeated Measurements	Interaction Repeated Measurement * Treatment	
Job control and scope of action	3.21 (1.15)	3.04 (1.38)	3.11 (1.19)	2.82 (1.30)	.015	.177	[-0.09 / -0.16]
Job variety	3.77 (1.04)	3.57 (1.15)	3.75 (1.05)	3.58 (1.05)	.356	.805[1]	[-0.02 / 0.01]
Holistic job	3.69 (1.16)	3.47 (1.22)	3.60 (1.17)	3.38 (1.21)	.142	.219[2]	[-0.08 / -0.07]
Social support	3.39 (1.14)	3.40 (0.99)	3.52 (1.13)	3.43 (0.99)	.854	.271	[0.12 / 0.03]
Cooperation	3.35 (1.03)	3.45 (1.01)	3.45 (0.99)	3.44 (0.92)	.780	.178	[0.1 / -0.01]
Qualitative stressors	2.60 (1.16)	2.76 (1.12)	2.74 (1.12)	2.89 (1.12)	.383	.971	[0.12 / 0.12]
Quantitative stressors	3.60 (1.16)	3.99 (1.04)	3.60 (1.07)	3.80 (0.99)	.080	.246[3]	[0.00 / -0.19]
Situational constraints	2.89 (1.12)	2.98 (1.15)	2.84 (1.14)	3.10 (1.17)	.911	.190	[-0.04 / 0.10]
Environmental stressors	2.37 (1.22)	2.73 (1.22)	2.51 (1.14)	3.08 (1.28)	.838	.299	[0.12 / 0.28]
Information and Participation	3.20 (1.04)	2.82 (1.20)	3.15 (1.06)	2.88 (1.19)	.994	.612	[-0.05 / 0.05]
Benefits and possibilities for development	2.65 (1.20)	2.29 (1.07)	2.77 (1.24)	2.21 (1.01)	.884	.364	[0.1 / -0.08]

Note: [1]Significant effect for interaction of repeated measurement with control variable workplace status: .013. [2]Significant effect for interaction of repeated measurement with control variable gender: .035 and significant effect for interaction of repeated measurement with control variable

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age: .014, and significant effect for interaction of repeated measurement with control variable workplace status: .020. [3]Significant effect for interaction of repeated measurement with control variable qualification: .046, and significant effect for interaction of repeated measurement with control variable comorbid mental disorder: .020.

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